## Message

From: James Dotchin [jdotchin@ndep.nv.gov]

**Sent**: 9/15/2016 9:50:42 PM

To: James Carlton Parker [jcarltonparker@ndep.nv.gov]; Weiquan Dong [wdong@ndep.nv.gov]; Fong, Alison

[fong.alison@epa.gov]

**Subject**: FW: NERT EE/CA Weir Dewatering Treatment

Attachments: removed.txt

Alison, Carlton and Weiguan,

Below are some thoughts from MWD. Mainly they are wondering if there are alternative uses for the treatment system after this program is over and other options for the biological plant idea. Generally I think they fit into what we discussed yesterday. Interestingly flow rates and cost were barely brought up.

I have passed this along to Andy at NERT.

I would like to get a combined response back to MWD ahead of the Action Memo being issued from NDEP just to make them more comfortable. Please route the response through me to cut down on any miscommunication. Thanks.

JD



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**From:** Chaudhuri, Mickey [mailto:MChaudhuri@mwdh2o.com]

Sent: Thursday, September 15, 2016 1:48 PM

To: James Dotchin

Cc: Liang, Sun; Lopez, Maria T; Eric Fordham; Teraoka, Jill C

**Subject:** NERT EE/CA Weir Dewatering Treatment

Hi JD-

We discussed the EE/CA internally here—below are our thoughts. Ultimately we'd all like to see NERT get the most value for this large capital expense and we've identified some potential options and considerations below. Please give me a call if you'd like to discuss. I'm pretty tied up today and tomorrow in meetings so if I'm not in, just leave a message or shoot me an email and I'll get back to you. Thanks for the opportunity to provide input.

Mickey

## Comments on EE/CA

- Metropolitan supports this effort to minimize additional loading of perchlorate into Las Vegas Wash by treating dewatered groundwater during the Sunrise Mountain and Historic Lateral weir construction period. Given the high capital costs for either treatment approach described in the EE/CA, we believe additional long-term uses and benefits should be considered and identified in the EE/CA to help determine the most cost-effective overall approach. The best solution for a 6- to 12-month weir dewatering period may not necessarily be the optimal solution when considering other potential uses of the treatment system, either during and/or following the weir construction period.
- Can the proposed treatment system be utilized to receive seep area flows, which could eliminate the need for the proposed GWETS IX treatment system (also constructed at Lift Station 1) intended to reduce GW-11 levels?
- Has continued operation of a treatment system as an interim measure (and potentially for a longer-term measure) been considered while development of a long-term remedy is underway?

Additional purposes for this large capital investment should be explored. Although that may seem outside the scope of this EE/CA, these other uses could potentially advise or alter the recommended treatment approach and get us the most bang for the buck.

- The EE/CA finds that biological treatment does not meet the effectiveness and implementability criteria since the biological reactors would not be effective under no-flow conditions. The solution that was evaluated involves constructing a 10-million gallon equalization tank to balance flowrates. The EE/CA indicates that the \$8 million equalization tank would take over one year to construct which would make biological treatment not viable based on the weir construction schedule, as well as high capital cost. We should ensure that we've considered all options for use of biological treatment to lower the construction cost and schedule, and determine whether biological treatment or IX is the better approach, considering the significant operating costs for IX with high TDS and sulfate in the groundwater.
- Could a recirculation system or alternative design to stabilize flowrates (including use of a smaller tank) be used to eliminate the high cost and schedule prohibitive equalization tank?
- Could other downstream areas impacted by perchlorate be integrated into a biological treatment approach that (1) could provide continued flow to the treatment system when dewatering flow is at zero (eliminating need for large storage tank), and (2) have added benefit of remediating additional perchlorate impacted areas?
- Operationally, the NERT team's familiarity and experience with biological treatment at the site may be beneficial to the biological treatment option.
- For costing purposes, the EE/CA assumes spent resin from the IX would be disposed of through incineration. Do these costs consider possibility of increased hazardous waste disposal costs; could there potentially be low levels of radionuclides accumulated in the resin?

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